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**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re the Application of: **Makoto TOMIOKA**

Group Art Unit: **2621**

Application Number: **09/893,677**

Examiner: **David J. Czekaj**

Filed: **June 29, 2001**

Confirmation No.: **9414**

For: **RIGID VIDEO-ENDOSCOPE SYSTEM**

Attorney Docket Number: **010680**

Customer Number: **38834**

**REPLY BRIEF**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

September 26, 2007

Sir:

In response to the Examiner's Answer mailed July 26, 2007, the following is the Appellant's Reply Brief.

### REMARKS

In the Examiner's Answer, the Examiner takes the position on page 6, lines 19-21, that in Figure 1 of Takahashi, the endoscope system comprises a set of three lenses 6, two of which are located in the inserting section 2 and the other being located in the camera head 3.

That is, in response to the Appellant's arguments that Takahashi fails to disclose or fairly suggest the features of claim 1 regarding *wherein said camera head includes a part of said relay optical system, said image optical system and said solid-state image sensor*, the Examiner essentially takes the position that the third relay lens of the relay lens section 6 from left to right, which is closest to the operating/holding section 3, is included in the operating/holding section or camera head section 3 in Takahashi.

However, it is the Appellant's position that the Examiner is mischaracterizing the teachings of Takahashi. More specifically, it is submitted that each of the relay lenses of the relay lens section 6 shown in Figure 1 of Takahashi are included in the insertion section 2 of the stereoscopic rigid-type endoscope 1 and are not included in the operating/holding section 3.

That is, Takahashi clearly discloses that the operating/holding section 3 has a relatively large diameter and it is connected with the insertion section 2. Please see column 4, lines 10-12 of Takahashi. As such, it is respectfully submitted that the operating/holding section 3 having a relatively large diameter can be clearly seen in Figure 1. Furthermore, it can also be seen that each of the relay lenses of the relay lens group 6 are clearly not included in the relatively large

diameter of the operating/holding section 3 and instead are clearly included in the insertion section 2.

Moreover, it is submitted that Takahashi explicitly discloses that the insertion section 2 of the stereoscopic rigid-type endoscope 1 includes the relay lens section 6. Specifically, Takahashi discloses in column 4, lines 14-18, the following:

In the inserting section 2 of the stereoscopic rigid-type endoscope 1, an objective lens system 5 and a relay lens section 6 are arranged along an optical axis, in that order from the front end, to form a relay lens system 7, which is supported by a first support means.

Accordingly, in view of the above-noted disclosure of Takahashi, it is respectfully submitted that the Examiner's position that two of the lenses of the relay lens group 6 are included in the insertion section 2 and that the third lens is included in the camera head or operating/holding section 3 is completely without merit, since Takahashi explicitly discloses that the insertion section 2 includes the relay lens group 6 and that the operating/holding section 3 corresponds to the section shown in Figure 1 having the relatively large diameter which fails to include any of the relay lenses of the relay lens section 6.

Therefore, it is again submitted that Takahashi fails to disclose or fairly suggest the features of claim 1 regarding *wherein said camera head includes a part of said relay optical system, said image optical system, and said solid-state image sensor.*

Further, since the relay lens section 6 and relay lens system 7 are completely included in the inserting section 2 of the stereoscopic rigid-type endoscope 1, Takahashi also fails to disclose or fairly suggest that the inserting section 2 includes a **remaining part** of the relay lens section 6

and relay lens system 7. Accordingly, it is submitted that Takahashi fails to disclose or fairly suggest the feature of claim 1 regarding *wherein said front-end insertion section includes the objective optical system and a remaining part of the relay optical system.*

Moreover, the image formed by the relay lens 6 is not inside the operation/holding section 3. As noted above, in Fig. 1 of Takahashi, the relay lens 6 is in the insertion section 2 and the image of an object is formed in the last lens of the relay lens. Further, while Lens 9a (or 9b) forms an image of the image on the CCD 11a (or 11b), these lenses correspond to the imaging optical system in claim 1, and are not a part of the relay optical system.

Accordingly, it is submitted that Takahashi fails to disclose or fairly suggest the feature of claim 1 regarding *the relayed image is formed between the relay optical system and the imaging optical system in the camera head.*

Moreover, it is respectfully submitted that the Examiner has failed to rely on the primary reference of Igarashi for teaching the above-noted features of claim 1.

In addition, as discussed above, neither reference, Igarashi and Takahashi, discloses or provide any suggest concerning including part of the relay optical system in a camera head. As such, it is submitted that the Examiner has failed to provide proper motivation for one of ordinary skill in the art to include part of a relay optical system in a camera head, and instead, the Examiner is merely relying on the teaching provided in Applicant's own disclosure, which constitutes impermissible hindsight.

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Moreover, even if, assuming *arguendo*, Igarashi and Takahashi can be combined in the manner suggest by the Examiner, such combination would still fail to disclose or fairly suggest the features of claim 1 concerning *wherein said camera head includes a part of said relay optical system, said imaging optical system and said solid-stage image sensor, and the relayed image is formed between the relay optical system and the imaging optical system in the camera head, and wherein said front-end insertion section includes the objective optical system an, a remaining part of the relay optical system; and the insertion section and camera head are detachable.*

For at least these reasons, it is submitted that the Examiner has failed to establish a *prima facie* case of obviousness and therefore the obviousness rejection of claims 1 and 3-18 should be withdrawn.

Thus, for at least the above reasons, Appellant requests that the Honorable Board reverse the Examiner's rejection.

If this paper is not timely filed, Appellant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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